

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 1.17: to consider upgrading the allocation to the radiolocation service in the frequency range 2 900-3 100 MHz to primary;

Background Information: Due to changes in requirements and missions of the radiolocation service, it is necessary to augment existing primary allocations in bands below 6 GHz where unique propagation properties exist. Changes in technology are driving a need for larger bandwidth in order to be able to pick smaller and less reflective radar targets out of background clutter. The radiolocation service, while recognizing the special needs of radionavigation services as noted in RR **4.10**, has demonstrated compatible operations with aeronautical and maritime radionavigation radars in common bands, including the 2 900-3 100 MHz band, which is now shared on a secondary basis.

ITU-R studies on maritime radionavigation radars and emissions from radiolocation radars in the band 2 900 - 3 100 MHz illustrate compatibility between radiolocation radars and radionavigation radars operating in the 2 900 - 3 100 MHz band. These tests indicate that typical maritime radionavigation radars can suppress emissions from other radars, even when that interference is received with very high interference-to-noise (I/N) ratios, and when the unwanted pulsed waveform is asynchronous and has a low duty cycle. These test results confirm the historical sharing experience between the two services in the 2 900-3 100 MHz band. An ITU-R Draft New Report on factors that mitigate interference from radiolocation radars to maritime and aeronautical radionavigation radars in the 2 900 - 3 100 MHz band confirms that interference from radiolocation radars to maritime and aeronautical radionavigation radars in the 2 900 - 3 100 MHz band can be mitigated.

Few aeronautical radionavigation radars use this band, and characteristics of those aeronautical radionavigation radars have not been documented within the ITU-R. However, characteristics of aeronautical radionavigation radars using the adjacent 2 700 - 2 900 MHz band have been documented in Recommendation ITU-R M.1464, and are expected to be similar to those in the 2 900 - 3 100 MHz band. Similarly, weather radars, which resemble radiolocation radars in their beam scanning, have operated successfully in close proximity with aeronautical radionavigation radars in the 2 700 - 2 900 MHz band. Radionavigation radars that have operated in this band have demonstrated compatible operations with the radiolocation systems, mainly as a result of newer radar design features that mitigate received radar-to-radar interference as described in Recommendation ITU-R M.1372.

Proposal:

2 900-3 100 MHz		
Allocation to services		
Region 1	Region 2	Region 1
USA/ /1 MOD	2 900-3 100 MHz	RADIONAVIGATION 5.425 5.426 5.427
		Radiolocation
		<u>RADIOLOCATION</u> <u>ADD 5.XXX</u>

Reasons: Provides a worldwide primary allocation with respect to future entrants.

USA/ /2
ADD

5.XXX The radiolocation service operating in the band 2 900 - 3 100 MHz band shall not cause harmful interference to, nor claim protection from or constrain the use and development of, the radionavigation service operating in accordance with the Radio Regulations.

Reasons: The radionavigation service will continue to be protected.
